No. G. 12327—*Sany.* 1-28-27, *dated* 3*rd April* 1929.

In exercise of the powers vested in them under the Mysore Epidemics Regulation II of 1897, the Government of His Highness the Maharaja of Mysore hereby prohibit the attendance of people from areas infected with cholera or plague at the Jatra at Chikkthirupathi, Lakkur Hobli, Malur Taluk during the period from 20th April 1929 to 27th April 1929 (both days inclusive). All persons proceeding to the Jatra in contravention of this Notification are liable to be turned back.

By Order,
R. RANGA RAO,
Offg. Chief Secretary to Government.

DEVELOPMENT SECRETARIAT.

Official Memorandum No. D. 10122—*I. & C.* 341-28-2, *dated* 2*nd April* 1929.

The following note by Sir Alfred Chatterton on Sugar-cane cultivation under the Krishnarajasagara is hereby published for the information of the Public. Government would be glad to receive suggestions and criticisms on the various proposals contained in the note from persons interested in the subject. All communications may be addressed to the Secretary to Government, Development Departments, and should reach before the 1st June 1929.

By Order,
N. RAMA RAO,
Secretary to Government,
Development Departments.

SUGAR-CANE CULTIVATION UNDER THE KRISHNARAJASAGARA.

The problem which I propose to discuss in this note is what policy should be pursued to obtain the maximum economic advantage from the very large expenditure which has been incurred on and which will yet be incurred to complete this combined hydro-electric and irrigation project. The works are estimated to ultimately cost Rs. 641 Lakhs, of which approximately Rs. 400 Lakhs has already been expended involving interest charges which calculated at 5½ per cent amount to Rs. 24 Lakhs per annum. The hydro-electric developments have been carried out and the capacity of the Sivasamudram Station has been increased by 36,000 Horse power. At this moment, I have not before me any information of recent date as to the extra revenue which is now earned by the Sivasamudram Installations, but it is estimated to ultimately amount to Rs. 30 Lakhs and is probably now about two-thirds of that sum. The interest charges are not therefore a serious burden at the present time, but they will rapidly increase and after the sanctioned programme of work is completed, they will be very heavy and it is necessary that the irrigation returns should as rapidly as possible be developed to meet them.

2. In July 1927, Government appointed a Committee to advise them as to the measures necessary for the development of irrigation under this reservoir and the valuable report submitted by that Committee was accepted by Government and the requisite orders passed giving administrative sanction to the recommendations contained therein.

3. In this report, the Committee stated that the water available for irrrigation would be 35,718 million C.ft. or sufficient for an area of about 1,20,000 acres, assuming that in each year one-third of the land was under sugar-cane with a duty of 2½ acres per million cubic feet: one-third under paddy with a duty of 4 acres per million cubic feet and one-third under garden crops with a duty of 10 acres per million cubic feet. This works out at an average of 4 acres of irrigation per million cubic feet, on the assumption that the areas under each kind of crop are equal. On this basis, 1,20,000 acres will require 30,000 million cubic feet of water and there is a margin of 5,718 million cubic feet or nearly 20 per cent to allow for contingencies and for possibly excessive cultivation of sugar-cane. This is, I consider, a very reasonable and even somewhat conservative estimate of the duty that may be expected from the water and I do not in any way share the opinions of some who have thrown doubts on the possibility of realising these estimates.

4. Near the conclusion of their report, the Committee stated "No pains should be spared to develop irrigation in accordance with the latest practices and with an eye to the highest returns. The Policy indicated in this report should be steadily pursued for at least 15 years from the date Government begin to give water for irrigation". From this I conclude that the Committee consider that 15 years will be necessary to bring the ultimate area under irrigation and one member taking a less favourable view in a separate note would extend the period to thirty years. The history of the development of irrigation in the

Madras Presidency especially under the Godaveri and Kistna systems furnishes ample warrant for such views and I have but little doubt that unless special measures are taken there will be a comparatively slow expansion of irrigation and that the adoption of block systems with a triennial rotation of crops will tend further to extend the time. I am nevertheless in favour of the principle of the block system as being in the long run calculated to give the best return.

5. It appears to me however that this irrigation project affords an unprecedented oppotunity for the adoption of a new policy which will carry the idea, the germ of which appears in the block system, to its complete development. The essential feature of the block system is a triennial rotation of crops to which the cultivator is made to conform in his own and in the general interest. One of these three crops is sugar-cane, which is estimatad to yield a return of Rs. 500 per acre, as compared with Rs. 80 for paddy and Rs. 50 for garden produce. It will be agreed that sugar-cane is a capitalist crop and that to realise the large return given above will involve proportionately heavy cultivation expenses. To avoid controversy I will not suggest a definite figure. But that is not all when the crop is ripe it must be crushed and the resulting juice boiled down to Jaggery by the cultivator or the canes sold to a mill for the manufacture of Sugar. Years ago I worked out in Coimbatore that a pair of bullocks will crush an acre of cane in three weeks and I formed the opinion, both there and later in Mysore, that the lack of cattle power was one of the reasons that restricted the area of cane cultivation.

6. I think we may assume that the cultivators under the lands commanded by the High Level Canal are mostly without resources and quite unable to find the capital necessary to engage in Sugar-cane cultivation. They may be able to borrow a little money but it is quite certain that without extraordinary measures to help them the development of sugar-cane growing will be very slow. Moreover when cane is grown, there will be the difficulty of crushing the crop and when all obstacles are overcome, of the realisable profits a large portion will be absorbed in interest on advances.

7. I have for a long time held the view that India is not self-supporting in the matter of sugar because the cultivator of sugar-cane has perforce also to be a manufacturer of *gur*. I do not think it is necessary now to elaborate this proposition but I would point out that the more intensive the cultivation of cane and the higher the percentage of land under this crop, the greater are the disadvantages under which the indigenous system labours. We are now contemplating 33 per cent of the cultivated area being under sugar-cane and I agree with the dissentient member in his pessimistic outlook. But unlike him, I do not accept the situation as I think that it is extremely easy to provide remedies for all the difficulties which normally the cultivator will have to face if left to himself.

8. My proposal amounts to this—that Government should come to the aid of the cultivator and should provide him with financial assistance to grow sugar-cane, that Government should take over his crop when it has been cut and that they should provide the machinery to crush it and work it up into a marketable product and that finally they should place the product on the market. If this is agreed to, the work should be taken in hand at once and preliminary arrangements made so that directly water is let into the Canals, which I understand will be in 1931, a large area of Sugar-cane can be started. At this stage, it would be quite useless to discuss in detail how these operations can be carried out. As a matter of fact, there should be no difficulty about them and the details can be varied to suit local needs and will certainly be subject to modification as experience accumulates. It does however appear to me to be necessary to clearly indicate what financial responsibility Government will incur and what benefits will accrue to the cultivators and what return will be obtained by the State.

9. The proposal of the Committee accepted by Government amouts to this that under this irrigation system, the cultivators must agree to put one-third of their land under sugar-cane or they will not get water. This is justifiable as without such a provision no adequate return can be obtained on the expenditure to provide the irrigation water. The cultivator runs no risk of not getting a market for his crop as India imports about 800,000 tons of sugar a year and on this import, there is a duty of 25 per cent. Experience shows that cane can be grown in Mysore and that the conditions, when water is available, are very favourable. There is therefore no more risk in growing sugar-cane than any other crop. If Government take over the crop, they take over produce which can easily be sold at the current market prices and they will pay the cultivator for his crop at rates computed by a sliding scale depending on prevailing market rates. The investigations necessary to obtain an equitable sliding scale will not be easy as it will have to be based on the sucrose contents of the cane and one may reaonably anticipate that it will take time to get it to work smoothly. There is considerable experience on this matter available at Nelikuppam in the South Arcot District of the Madras Presidency and in the North of India, where a number of sugar manufacturing companies are at work.

10. All advances made to cultivators should be on a commercial basis and the rate of interest should be one per cent above the average bank rate. I assume for the sake of illustration that it will be necessary to advance the raiyat or cultivator a sum of Rs. 200 per

acre of cane for cultivation expenses, for the purchase of seed cane and for manures. Ultimately with 40,000 acres under cane such advances would amount to Rs. 80 lakhs but it is important to remember that they will be floating advances, such as if necessary the Imperial Bank or the Bank of Mysore could make, and they will be secured by the fact that the crop when ready will be handed over to Government for conversion into jaggery or sugar. On the basis of Rs. 200 per acre and allowing a period of five years to bring the whole area under cultivation, the amount of finance to be granted will start with about Rs. 16 to Rs. 20 lakhs and will increase annually by that amount but the transactions of each year will be complete in a definite period as the cultivator liquidates his debt by handing over his crop. Only failure of the crop through negligence or unavoidable causes will lead to default and it will be easy to provide an insurance rate to cover such contingencies.

11. To deal with the crop, I would in the first instance advise Government to instal five roller crushing mills driven by electric power or by oil or gas engines, each with an adequate battery of boiling pans. There is a great deal of experience available as to the working of such plants and they should be of a capacity to deal with about 200 acres of cane in the season. Roughly, I except they will cost about Rs. 20,000 each or say Rs. 100 per acre. To cover the whole area of 40,000 acres with such plants would involve a permanent capital outlay of Rs. 40 lakhs. But before that area is reached, it is possible that these plants may in some tracts be superseded by large sugar mills and in that case the displaced jaggery plants can be moved elsewhere. The establishment of large sugar mills should be a subject for later consideration, but it may be assumed that the successful cultivation of cane, on a large scale and with a high degree of concentration, will render them inevitable. Whether they are to be Government Mills or set up by private agency need not now be discussed.

12. The Committee estimate the return from sugar-cane at Rs. 500 per acre or at Rs. 2 crores from 40,000 acres and these figures, I accept, save that I think the evidence as to the existence of 40,000 acres of good sugar-cane land is not convincing. It seems to me that it is necessary that a very careful survey of the area commanded should be made by a competent expert staff and unequivocal evidence obtained. That there is a large area I do not doubt but the actual extent and its classification into grades certainly requires urgent attention.

13. Under this scheme of working the Sugar-cane cultivation, the raiyat will be relieved of anxiety regarding finance. The local market for jaggery need not be flooded directly the crushing season is over as is usually the case when the raiyat crushes his own cane and there need not be those violent fluctuations in prices which usually occur. In addition the quality of jaggery can be fairly standardised and that in itself will be an advantage whilst the standard of quality may also be raised as the conditions under which manufacture will take place will be favourable to the production of a high quality.

14. The most important and novel feature of this scheme will be that the whole of the sale proceeds of the crop will pass through the hands of Government and will necessitate the provision of a very competent accounts department to deal with their distribution. The cultivator will be credited with the value of his produce and from that gross value will be deducted all advances made to him, during the previous year with the accrued interest charges, together with his total water-rate for the area irrigated under the block system. I do not accept the charges proposed by the Committee as equitable to Government, nor do I suggest what they should be, but I do suggest that of the unaided raiyat under the Deccan Canals can pay as much as Rs. 50 or Rs. 60 per acre, it will be equitable to charge a much higher rate than Rs. 15 per acre contemplated by the Committee.

15. It is proposed to recover part of the cost of the project by the levy 'of a contribution,' on the land irrigated averaging Rs. 100 per acre and to spread the period of payment over five years. This is in accordance with local custom and I understand will not be objected to but I venture to suggest that it is not sound policy. To levy the whole contribution in the five initial years is to levy it during the time when the cultivator requires all the capital he can command and during the period when it is desirable that he should be given every possible encouragement so that he may learn to appreciate the advantages of supervised cultivation. I would therefore suggest for consideration that the contribution be either dropped entirely and a much higher water-rate levied or that it be increased in amount and recovered over a long period of years. I have seen irrigated land increase from Rs. 100 per acre to Rs. 1,000 per acre and I am sure that in the case of this irrigation system, if worked on the lines I have proposed, the land values will increase in at least the same ratio. It is universally agreed now that unearned increments should be regarded as a legitimate source from which public revenue may be derived and it would, I think, be a somewhat short sighted policy in this instance to follow ancient precidents.

16. I have not adequate data to prepare a financial forcast of the effect of these proposals. The results will depend on the prevailing prices for sugar and jaggery several years hence and though there is no certainty about them, it is hardly likely that they will be lower than at present. The benefits of this scheme should be shared by Government and by the

cultivators and after the whole cost of working it has been debited to the annual income, any surplus profits might be distributed in some predetermined ratio. Merely for consideration, I suggest that since Government bears the financial burdens and thereby obtains unusually chief finance for the cultivator, the ratio should be 60 per cent to Government and 40 per cent to the cultivators but a very detailed examination might lead to the adoption of some other ratio.

At the present moment, it appears to me undesirable to consider more than the general outline of these proposals which I have now submitted. If they are accepted as a guide to the policy to be persued, it would then be desirable to appoint a special officer to consider them in detail and devise a working plan. I presume that in some form or other, they will be presented to the Legislative Assembly and that they will only be adopted with popular approval of them as a satisfactory solution of the problem before the Government.

It may not be inopportune to draw attention to the somewhat similar methods adopted in the Soudan under the great reservoir on one of the branches of the Nile to secure a rapid expansion of the irrigated cotton crop. Writing without references I think that in this case the Soudan Government have given concessions to a private company which has already financed the whole of the works necessary to deliver the water on to the land and its further assumption of responsibility for the conduct of the cultivation in accordance with the results of modern agricultural knowledge is a comparatively slight matter. Yet it is essential if anything like a reasonable return is to be obtained.

5th March 1929. Alfred Chatterton.

LAW SECRETARIAT

No. P. 5781—*Pol.* 198-28-2, *dated* 30*th March* 1929.

In modification of Notification No. P. 5932—Police 50-26-68, dated 16th May 1927, the Government are pleased to direct that the officers of the Public Works Department referred to therein, shall be entitled to free licenses in Form IX of the Mysore Arms Rules, 1926, in respect of a gun and a revolver and a reasonable quantity of ammunition for the same.

No. P. 5813—*Cts.* 41-28-50, *dated* 1*st April* 1929.

The privilege leave of one month granted to Mr. B. R. Ramalingiah, M.A., B.L., Second Grade Munsiff in charge of the Second Magistrate's Court, Tumkur, in Government Notification No. P. 4087—Cts. 41-28-37, dated 1st February 1929, is hereby extended by fifteen days.

The existing acting arrangement will continue during the above period.

No. Rel. 298—*L. C.* 17-28-1, *dated* 3*rd April* 1929.

In exercise of the powers vested in them under section 6 (1) of the Mysore Legislative Council Regulation, XIX of 1923, the Government of His Highness the Maharaja of Mysore are pleased to modify sub-rule (3) of Rule 23 of the Rules relating to the constitution of the Committee on Public Accounts, issued with Notification No. P. 4347—Legis. 13-23-22, dated 5th February 1924, as follows:—

"(3) One of the Members of the Council of His Highness the Maharaja appointed by the Government for the purpose, shall be the Chairman of the Committee. In the case of equality of votes on any matter, the Chairman shall have a second or a casting vote."

No. Rel. 299—*L. C.* 17-28-2, *dated* 3*rd April* 1929.

Under rule 23 (3) of the rules for the conduct of business of the Legislative Council, relating to the constitution of the Committee on Public Accounts, as modified by Notification No. Rel. 298—L. C. 17-28-1, dated 3rd April 1929, the Government of His Highness the Maharaja of Mysore are pleased to appoint the Third Member of Council as Chairman of the Committee on Public Accounts.

By Order,
P. MAHADEVAYYA,
Secretary to Government,
Law Department.

GENERAL SECRETARIAT.

No. R. 7893—*R. M.* 10-28-51(*a*), *dated* 3*rd April* 1929.

Under paragraph 2 of the rules, issued in Government Order No. R. 14-25—L. R. 119-24-74, dated the 3rd October 1925, the wet lands under the marginally noted tanks in the Devasamudra Hobli of the Molakalmuru Taluk, are notified as being entitled to remission of half wet assessment during the year 1928-29.

1. Chikkenahalli.
2. Gowrasamudra.
3. Siddapura
4. Devasamudra.

By Order,